WHAT IS CLAIMED IS:

1. A method of performing quality assurance on an interrupted treatment of radiation therapy, the method comprising:

measuring a first delivered dose distribution during an uninterrupted treatment;

measuring a second delivered dose distribution during an interrupted treatment;

obtaining first and second images that represent the first and second delivered dose distributions, respectively;

registering the first and second images so that they substantially map into the same space; and

comparing the first and second images to determine any differences between the first and second images.

2. The method of claim 1, further comprising displaying a quality characteristic indicating the differences between the first and second images.

3. The method of claim 1, further comprising measuring the first and second delivered dose distributions by exposing a detection medium to radiation from an uninterrupted treatment and from an interrupted treatment, respectively.

4. The method of claim 3, further comprising measuring the first and second delivered dose distributions by exposing the detection medium to a test pattern.

5. The method of claim 3, further comprising measuring the first and second delivered dose distributions by exposing the detection medium to a treatment plan of a patient.

6. The method of claim 1, further comprising obtaining the first and second images by digitizing the first and second delivered dose distributions, respectively.

7. The method of claim 1, further comprising registering the first and second images using an AFFINE transform.

8. The method of claim 1, further comprising comparing the first and second images by subtracting the first image from the second image.

9. The method of claim 1, further comprising comparing the first and second images by calculating dose area distributions from the first and second images.

10. The method of claim 9, further comprising subtracting the dose area distribution of the first image from the dose area distribution of the second image.

11. The method of claim 1, further comprising comparing the first and second images by calculating dose volume distributions from the first and second images.

12. The method of claim 11, further comprising subtracting the dose volume distribution of the first image from the dose volume distribution of the second image.

13. The method of claim 1, further comprising comparing the first and second images by calculating cumulative dose area distributions from the first and second images.

14. The method of claim 13, further comprising subtracting the cumulative dose area distribution of the first image from the cumulative dose area distribution of the second image.

15. The method of claim 1, further comprising comparing the first and second images by calculating cumulative dose volume distributions from the first and second images.

16. The method of claim 15, further comprising subtracting the cumulative dose volume distribution of the first image from the cumulative dose volume distribution of the second image.

17. A device for performing quality assurance on an interrupted treatment of radiation therapy, the device comprising a software routine tangibly embodied on a computer-readable medium and configured to generate a quality characteristic indicating differences between an uninterrupted treatment and an interrupted treatment, the software routine generating the quality characteristic from first and second images, the first and second images derived, respectively, from measurements of a first delivered dose distribution obtained during an uninterrupted treatment and a second delivered dose distribution obtained during an interrupted treatment.

18. A system for performing quality assurance on an interrupted treatment of radiation therapy, the system comprising a computer having a graphical user interface enabling a user to interact with a software routine running on the computer, the software routine configured to generate a quality characteristic indicating differences between an uninterrupted treatment and an interrupted treatment, the software routine generating the quality characteristic from first and second images, the first and second images derived, respectively, from measurements of a first delivered dose distribution obtained during an uninterrupted treatment and a second delivered dose distribution obtained during an interrupted treatment.